

## The MS-AEJ Series Inverter/Charger



The MS-AEJ Series pure sine wave inverter/charger

### MODEL NUMBERS

- MS3748AEJ

### AVAILABLE FOR

- Renewable Energy Systems
  - Off-grid Power
  - Back-up Power
- Marine Systems
- Caravan Systems
- Truck Systems

### AVAILABLE ACCESSORIES

- AGS
- Battery Monitor Kit
- Conduit Box
- DC Load Disconnect
- Fuse Blocks
- Ignition Switch Lockout
- MMP-E
- Remote - ME-RC
- Remote - ME-ARC
- Remote Switch Adapter
- Smart Battery Combiner

The Powerful Difference

Magnum Energy now offers the MS-AEJ Series Inverter/Charger for 120/240 VAC/50 Hz installations (Jamaica). The MS-AEJ Series comes with all of the features you've come to expect from a Magnum product, including:

**Power Factor Corrected (PFC) Charger:** Our PFC charger is built into all of our inverter/chargers. It uses less energy from a generator than a standard charger – using 25-30% less AC current than standard chargers.

**Safe and reliable:** The MS-AEJ Series is listed to the stringent CE requirements, ensuring the inverter/charger is safe and reliable.

**Easy-to-install:** Install the MS-AEJ Series in four easy steps: simply connect the inverter's output to your distribution circuits or electrical panel, connect your utility power cable to the inverter's easy-to-reach terminal block, connect the batteries, and switch on the power.

### Features:

**Pure sine wave:** Power your T.V.s, stereos, plasma screens, and other sensitive electronics without worry. The pure sine wave inverter and power factor corrected charger provide clean, reliable inverter power with low total harmonic distortion (THD) of less than 5%.

**Choices:** The MS-AEJ Series comes in 12 and 24 volt configurations, allowing you to choose the model that is right for you.

**Versatile mounting:** Mount the MS-AEJ Series on a shelf, bulkhead, or even upside down.

**Lightweight:** The lightweight aluminum base and cover also provides noise reduction and corrosion resistance.

### Multiple ports:

The MS-AEJ Series provides multiple ports, including an RS485 communication port for network expansion, and a remote port.

### Accessible design:

The extra large AC access cover with terminal screw block and 360° DC connection terminals with covers make this inverter more accessible when it needs to be.

### Convenient switches:

The MS-AEJ Series comes with an on/off inverter-mounted switch with an easy-to-read LED indicator.

### Buy with ease:

The MS-AEJ Series is backed by a two-year (24-month) limited warranty.



## MS-AEJ Series Specifications

### MS3748AEJ

#### Inverter Specifications

Input battery voltage range	36 - 67.6 VDC
Nominal AC output voltage	120/240 VAC $\pm 5\%$
Output frequency and accuracy	50 Hz $\pm 0.4$ Hz
Total Harmonic Distortion (THD)	< 5%
1 msec surge current (amps AC)	70
100 msec surge current (amps AC)	32
5 sec surge power (real watts)	6200
30 sec surge power (real watts)	6000
5 min surge power (real watts)	5400
30 min surge power (real watts)	4000
Continuous power output at 25° C	3700 VA
Maximum continuous input current	90 A @ 50.4 V
Inverter efficiency (peak)	91%
Transfer time	~ 20 ms
Search mode (typical)	10 watts
No load (230 VAC output, typical)	22 watts
Waveform	Pure Sine Wave

#### Charger Specifications

Continuous output at 25° C	60 ADC
Charger efficiency (peak)	91%
Power factor	> .95
Input current at rated output (AC amps)	16 A @ 240 V (8 A per leg)

#### General Features and Capabilities

Transfer relay capability	30 amps AC per leg
Five stage charging capability	Bulk, Absorb, Float, Equalize (requires remote), and Battery Saver™
Battery temperature compensation	Yes, 4.6 m (15') BatteryTemp Sensor standard
Internal cooling	0 to 120 cfm variable speed drive using dual 92mm brushless DC fans
Overcurrent protection	Yes, with two overlapping circuits
Overtemperature protection	Yes on transformer, MOSFETS, and battery
Conformal coating on PCB's for corrosion protection	Yes
Powder coated chassis & top for corrosion protection	Yes
Stainless steel fasteners for corrosion protection	Yes
Listings	CE
Warranty	Two years

#### Environmental Specifications

Operating temperature	-20° C to +60° C (-4° F to 140° F)
Nonoperating temperature	-40° C to +70° C (-40° F to 158° F)
Operating humidity	0 to 95% RH non condensing

#### Physical Specifications

Dimensions (l x w x h)	34.9 cm x 32.1 cm x 20.3 cm (13.75" x 12.65" x 8.0")
Mounting	Shelf (top or bottom up) or wall
Weight	25.0 kg (55 lb)
Shipping weight	28.6 kg (63 lb)
Max operating altitude	4570 m (15,000')

**Magnum Energy, Inc.**

**The Powerful  
Difference**

Testing for specifications at 25° C  
 Specifications subject to change without notice.  
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**Authorized Magnum Dealer**